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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/736,880	12/15/2003	Yuval Yassour	61343.00002	5322

30256 7590 12/29/2005

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EXAMINER

SNIDER, THERESA T

ART UNIT	PAPER NUMBER
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1744

DATE MAILED: 12/29/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/736,880

Applicant(s)

YASSOUR ET AL.

Examiner

Theresa T. Snider

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 October 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-99 is/are pending in the application.
- 4a) Of the above claim(s) 1-35 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 36-99 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 15 December 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 12/15/2003.
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____.

DETAILED ACTION

Election/Restrictions

1. Claims 1-35 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention, there being no allowable generic or linking claim.

Election was made **without** traverse in the reply filed on 10/3/2005.

Drawings

2. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference sign(s) mentioned in the description: 18b(page 23, line 23; not in figure 3a, as disclosed), 12b(page 23, line 24), 10s(page 36, line 16). Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

3. Figures 12a-12d should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). Corrected drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37

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CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Page 40, line 33-page 41, line 1, page 41, line 17 and page 42, lines 6 and 17, the figures are disclosed as showing a view of a 'typical' platform.

Specification

4. The disclosure is objected to because of the following informalities:

Exemplary of such:

The title should be amended to reflect the elected invention.

Page 15, line 27, it is unclear as to what is meant by 'by using of'.

Page 20, line 30, it is unclear as to what is meant by 's SASO nozzle'.

Page 25, line 10, 'clean' should be replaced with 'cleaned';

Line 20, 'it' should be replaced with 'it's';

Line 23, 'reduces' should be replaced with 'reduced';

Line 27, it is unclear as to what is meant by 'top surface attributed to viscosity'.

Page 26, line 6, 'respect the' should be replaced with 'respect'.

Page 29, line 30, there is no 'figure 73'.

Page 30, lines 12 and 17, 'clean' should be replaced with 'cleaned';

Line 14, 'not' should be replaced with 'no'.

Page 31, line 5, 'response' should be replaced with 'respond'.

Page 33, line 33, 'clean' should be replaced with 'cleaned'.

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Page 35, line 3, 'imposed' should be replaced with 'imposes';

Line 20, 'that' should be deleted.

Page 36, line 26, 'imposed' should be replaced with 'imposes'.

Page 39, line 13, it is unclear as to what is meant by 'by 3 edge'.

Page 40, line 29, it is unclear as to what is meant by 'to provide either lateral the location'.

Appropriate correction is required.

5. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

Claim Objections

6. Claims 37-41, 46-49 and 61-63 are objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. The claims attempt to further define a function of use of the device rather than further structurally limit the device. Perhaps rephrase claims 37-38 to an element of the device that moves it to achieve the desired result. Perhaps rephrase claims 46-47 to an element of the device that allows for regulation of the gas supply to achieve the desired result. Perhaps rephrase claims 61-62 to an element of the device that provides support for the object
7. Claims 51 and 91 are objected to because of the following informalities:

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Exemplary of such:

Claim 51, 'evacuating' should be replaced with 'evacuation'.

Claim 91, line 1, 'said' should be inserted after 'wherein'.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

8. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

9. Claims 36-99 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. It is unclear as to what is meant by 'miniature lateral scale' and 'active surface'.

10. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

11. Claims 36-99 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Exemplary of such:

Claim 36, line 4, it is unclear as to what constitutes 'high-pressure';

line 9, it is unclear as to what constitutes 'miniature';

Line 10, it is unclear as to what constitutes 'narrow'.

Claim 42, it is unclear as to what constitutes 'sharp'.

Claims 43-45, line 1, it is unclear as to what is meant by the 'lateral scale' of the passage.

Claims 44-45, line 2, it is unclear as to what constitutes 'significantly' larger/smaller.

Claim 55, it is unclear as to what is meant by 'facilitates motion combined with linear motion'. Isn't 'linear' motion considered motion?

Claims 59-60, line 1, 'the cleaning head unit' lacks proper antecedent basis.

Claim 64, line 1, 'the cleaning head' lacks proper antecedent basis.

Claims 78-79, line 1, it is unclear as to whether the 'at least two high-pressure outlets' are in addition to the outlet of claim 36, line 5 or one in the same.

Claim 80, line 1, it is unclear as to whether the 'at least one high-pressure outlet' is in addition to the outlet of claim 36, line 5 or one in the same;

Line 2, 'operated separately' to do what?

Claim 81, line 1, it is unclear as to whether the 'at least one high-pressure outlet' is in addition to the outlet of claim 36, line 5 or one in the same;

Lines 2-3, it is unclear as to what is meant by 'two consecutive cleaning sequences'. Are these elements?

Claim 82, line 1, it is unclear as to whether the 'at least one high-pressure outlet' is in addition to the outlet of claim 36, line 5 or one in the same;

Line 2, it is unclear as to what is meant by 'without any respect to gravity'.

Claim 83, line 4, it is unclear as to what constitutes 'high-pressure' ;

Lines 6 and 10, it is unclear as to what constitutes 'narrow' ;

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Line 11, 'the cleaning device' lacks proper antecedent basis;

Line 12, it is unclear as to what constitutes 'miniature'.

Claims 89-90, line 1, it is unclear as to whether the 'mechanical means' is in addition to the 'relative motion means' of claim 83, line 9 or one in the same.

Claim 93, the 'means' is lacks a 'for' statement.

Claim Rejections - 35 USC § 102

12. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

13. Claims 36, 42, 46-56, 61, 71-74 and 78 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Uzawa et al..

Uzawa et al. discloses at least one high-pressure passage with an outlet for accelerating the gas, the outlet having a lip with the area between the lip and an object being a throat section (fig. 1, #2a, 11, 6a).

With respect to claim 42, Uzawa et al. discloses the lip being sharp (fig. 1, edge proximate #11).

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With respect to claim 46, Uzawa et al. discloses the pressure of the supply is regulated (col. 2, lines 53-55, can be 'off' or 'on').

With respect to claims 47-49, Uzawa et al. discloses the pressure of the gas being up to 100 bars (col. 4, lines 8-11 and 17).

With respect to claims 50-51, Uzawa et al. discloses at least one gas evacuation passage connected to a vacuum pump (fig. 1, #3, claim 1, lines 9-10).

With respect to claims 52-53, Uzawa et al. discloses a relative motion means that provides linear motion between the device and the surface (col. 2, lines 28-31).

With respect to claim 54, Uzawa et al. disclose the relative motion being angular (col. 3, lines 42-43).

With respect to claim 55, Uzawa et al. discloses the relative motion including linear motion (figs. 1 and 6, W,A).

With respect to claim 56, Uzawa et al. discloses a mechanical means providing the relative motion (col. 2, line 27 and col. 3, line 43).

With respect to claim 61, Uzawa et al. discloses the object to be cleaned is held with contact by mechanical means (fig. 6, #25,W).

With respect to claims 71-73, Uzawa et al. discloses the active surface being flat, arcuate and corresponding to the shape of the object (fig. 1, #8a,17, fig. 6).

With respect to claim 74, Uzawa et al. discloses the passage having a flow restrictor (fig. 1, #6a).

With respect to claim 78, Uzawa et al. discloses two outlets (fig. 1, #11,12).

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14. Claims 36, 50, 65 and 70-71 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Sowell et al. et al..

Sowell et al. discloses at least one high-pressure gas passage with a high-pressure outlet having a narrow lip that defines an active surface (fig. 3, #42,76).

With respect to claim 50, Sowell et al. discloses a gas evacuation passage (fig. 1, #40).

With respect to claims 65 and 70, Sowell et al. discloses the outlet being elongated and annular (fig. 4, #76).

With respect to claim 71, Sowell et al. discloses the active surface being flat (fig. 3, #76).

15. Claims 36-38, 50-53, 56-57, 61-62, 64, 82-86, 88, 90 and 99 are rejected under 35 U.S.C. 102(a,e) as being clearly anticipated by Hunter et al..

Hunter et al. discloses at least one cleaning head with a high-pressure passage having an outlet with a narrow lip with the area between the lip and an object being a throat section (fig. 7, #715).

With respect to claims 37-38, Hunter et al. discloses use of a mechanical or aeromechanical means to control the width of the throat section (0043).

With respect to claim 50, Hunter et al. discloses at least one gas evacuation passage (fig. 7, #709).

With respect to claim 51, Hunter et al. discloses the evacuation passage connected to a vacuum pump (0043).

With respect to claims 52-53, Hunter et al. discloses a relative motion means providing for linear motion (0043).

With respect to claims 56-57, Hunter et al. discloses the relative motion means being a mechanical or aeromechanical means (0043).

With respect to claims 61-62, Hunter et al. discloses the object supported by mechanical means or an air-cushion (0043, 0046).

With respect to claim 64, Hunter et al. discloses the head integrated with a platform (fig. 5, #400).

With respect to claim 82, Hunter et al. discloses the outlet is parallel to the object 9fig. 7, #705,715).

With respect to claim 83, Hunter et al. discloses a supporting means for the object (fig. 7, #704). Hunter et al. discloses a relative motion means (0043).

With respect to claims 84-85, Hunter et al. discloses the system able to accommodate both round and rectangular objects (fig. 5, a appropriate-sized rectangular object could fit on support).

With respect to claim 86, Hunter et al. discloses the supporting means including a platform that uses an air cushion (0043).

With respect to claims 88 and 90, Hunter et al. discloses the supporting means including a platform that contacts the object (0043).

With respect to claim 99, Hunter et al. discloses an optical scanner for inspecting a surface (0025).

Claim Rejections - 35 USC § 103

16. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

17. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

18. Claims 37-38, 59, 70, 77 and 79-80 are rejected under 35 U.S.C. 103(a) as being unpatentable over Uzawa et al..

Uzawa et al. discloses a similar device however fails to disclose a control means.

Uzawa et al. discloses adjusting the distance between the object being treated and the outlet (col. 5, lines 38-40). It would have been obvious to one of ordinary skill in the art to determine the most appropriate means to adjust the distance in Uzawa et al. to allow for the most accurate outlet placement.

With respect to claim 59, it would have been obvious to one of ordinary skill in the art that the cleaning head of Uzawa et al. would need to be supported by a mechanical means in order that it may be suspended above an object.

With respect to claim 70, it would have been obvious to one of ordinary skill in the art to determine the most appropriate outlet shape in Uzawa et al. to allow for the most air flow to a given object.

With respect to claim 77, it would have been obvious to one of ordinary skill in the art to place a flow restrictor in the evacuation passage of Uzawa et al. to allow for an acceleration of flow therefore to ensure that the particles are effectively removed from the object.

With respect to claims 79-80, it would have been obvious to one of ordinary skill in the art to determine the most appropriate outlet configuration in Uzawa et al. to allow for the most effective outlet placement for the most effective cleaning of an object.

19. Claims 39-41, 43-45, 65-66 and 68-69 are rejected under 35 U.S.C. 103(a) as being unpatentable over Uzawa et al. in view of Chino et al..

Uzawa et al. discloses a similar device however fails to disclose the claimed throat width or an elongated outlet.

Chino et al. discloses a cleaning device with the width of the throat section being in the micron range (col. 3, lines 7-8). It would have been obvious to one of ordinary skill in the art to adjust the width of the throat section in Uzawa et al. to the micron range, as disclosed in Chino et al., to allow for the most effective removal of the desired particles on a particular surface.

With respect to claims 43-45, it would have been obvious to one of ordinary skill in the art to adjust the throat width to the appropriate size in Uzawa et al. in view of Chino et al. to allow for the most effective air flow and particle removal from a surface.

With respect to claim 65, Chino et al. discloses an elongated outlet (col. 2, lines 64-65).

It would have been obvious to one of ordinary skill in the art that the outlet of Uzawa et al. would be elongated, as disclosed in Chino et al., to ensure that the entire width of an object is treated.

With respect to claim 66, Uzawa et al. discloses at least two elongated lips having opposing throat sections that are substantially equal in widths (fig. 1, #12,11). Chino et al. discloses an elongated lip (col. 2, lines 64-65). It would have been obvious to one of ordinary skill in the art that the lips of Uzawa et al. would be elongated, as disclosed in Chino et al., to ensure that the entire width of an object is treated.

With respect to claim 68, Uzawa et al. discloses the passage is perpendicular to the object (fig. 1, #2a,2b).

With respect to claim 69, Uzawa et al. discloses the passage is tilted with respect to the object (fig. 1, #2a,2b, unnumbered regions where reference #s 24,13 are placed).

20. Claims 58 and 81 are rejected under 35 U.S.C. 103(a) as being unpatentable over Uzawa et al. as applied to claim 36 above, and further in view of Sjöberg.

Uzawa et al. discloses a similar device however fails to disclose the ability of the head to move to different locations.

Sjöberg discloses a device with a gas passage that is capable of moving to different points (col. 3, lines 29-31). It would have been obvious to one of ordinary skill in the art to allow the head of Uzawa et al. to move between different points, as disclosed in Sjöberg, to ensure complete treatment of the object.

21. Claims 39-41, 43-45 and 65 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hunter et al. in view of Chino et al..

Hunter et al. discloses a similar device however fails to disclose the claimed throat width or an elongated outlet.

Chino et al. discloses a cleaning device with the width of the throat section being in the micron range (col. 3, lines 7-8). It would have been obvious to one of ordinary skill in the art to adjust the width of the throat section in Hunter et al. to the micron range, as disclosed in Chino et al., to allow for the most effective removal of the desired particles on a particular surface.

With respect to claims 43-45, it would have been obvious to one of ordinary skill in the art to adjust the throat width to the appropriate size in Hunter et al. in view of Chino et al. to allow for the most effective air flow and particle removal from a surface.

22. Claim 87 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hunter et al..

Hunter et al. discloses a similar system however fails to disclose a vacuum-preloaded air-cushion.

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It would have been obvious to one of ordinary skill in the art to have the air-cushion of Hunter et al. be vacuum-preloaded to ensure a constant throat width.

23. Claims 93-94 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hunter et al. as applied to claim 83 above, and further in view of Meyer et al..

Hunter et al. discloses a similar system however fails to disclose a heating means.

Meyer et al. discloses a cleaning system with a gas passage wherein the air is heated and discloses that the heated air helps to optimize cleaning of an object because it aids in deoiling and degreasing the object (col. 6, lines 9-14). It would have been obvious to one of ordinary skill in the art to provide a heater for the gas in Hunter et al. to allow for optimal cleaning of the object by allowing for deoiling and degreasing of the object, as disclosed in Meyer et al..

24. Claim 96 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hunter et al. as applied to claim 83 above, and further in view of Sjöberg.

Hunter et al. discloses a similar system however fails to disclose a wetting means.

Sjöberg discloses a cleaning head with a gas passage and a wetting means (fig. 3, 24). It would have been obvious to one of ordinary skill in the art to provide the wetting means of Sjöberg in view of Hunter et al. to allow for the use of a cleaning fluid on the object for treating of the surface when the gas has removed the particles.

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25. Claim 97 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hunter et al. as applied to claim 83 above, and further in view of Zoell.

Hunter et al. discloses a similar system however fails to disclose an ionizer.

Zoell discloses a cleaning head with a gas passage having an ionizer (col. 4, lines 15-20).

It would have been obvious to one of ordinary skill in the art to provide the ionizer of Zoell in view of Hunter et al. to allow for neutralization of any electrostatically charged particles on the object so they may detached and removed from the object.

26. Claim 98 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hunter et al. as applied to claim 83 above, and further in view of Uzawa et al..

Hunter et al. discloses a similar system however fails to disclose an actuator.

Uzawa et al. discloses a cleaning head with a gas passage having an actuator (fig. 1, #6a, col. 4, lines 40-47). It would have been obvious to one of ordinary skill in the art to provide the actuator of Uzawa et al. in view of Hunter et al. to allow for the destruction of any boundary layer that may exist to allow the gas to have direct contact with the object.

Allowable Subject Matter

27. Claims 60, 67, 75-76, 91-92 and 95 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

28. The following is a statement of reasons for the indication of allowable subject matter: the prior art discloses a cleaning device with at least one high-pressure passage with an outlet for accelerating the gas, the outlet having a lip with the area between the lip and an object being a

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throat section HOWEVER fails to disclose or fairly suggest the lip including at least two elongated lips having two opposing throat sections having different widths. The prior art discloses a cleaning device with at least one high-pressure passage with an outlet for accelerating the gas, the outlet having a lip with the area between the lip and an object being a throat section with an object support platform allowing for support of the object by an air-cushion HOWEVER fails to disclose or fairly suggest the outlet being supported by an air-cushion.

Conclusion

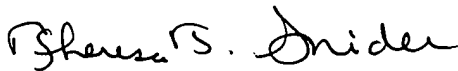
29. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Takada discloses the use of ultrasonic waves to remove dust from an object. Illingworth et al. and Allen et al. disclose the use of both blowing and suction to clean an object. Haruch et al. discloses the use of blowing to clean an object.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Theresa T. Snider whose telephone number is (571) 272-1277. The examiner can normally be reached on Monday-Thursday (5:30am-2:00pm).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rick Crispino can be reached on (571) 272-1226. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in black ink, appearing to read "Theresa T. Snider". The signature is written in a cursive, flowing style.

Theresa T. Snider
Primary Examiner
Art Unit 1744

12/27/2005